IN THE CLAIMS:

The following listing of claims will replace all prior versions and/or listings of claims in the application:

Listing of Claims:

1. (Currently amended) A ~~M~~method of minimizing the [["]]corner[["]] effect in shallow trenches ~~(26)~~ of silicon oxide for laterally insulating active areas, comprising: ~~(21), characterized in that after depositing a layer (23) of silicon oxide into the trenches (26), said deposited layer is densified by irradiation with short wavelength light~~

depositing a layer of silicon oxide in the shallow trenches; and

irradiating the deposited layer of silicon oxide in the shallow trenches with short wavelength light to densify the layer of silicon oxide.

2. (Currently amended) The ~~M~~method ~~according to~~of claim 1, ~~characterized in that the oxide layer is densified by~~ further comprising irradiating ~~said~~ the silicon oxide layer with light at a wavelength less than or equal to 200 nm, with a number of photons per cm^2 greater than 10^{19}, and an energy at least equal to 9 eV.

3. (Currently amended) The ~~M~~method ~~according to~~of claim ~~2~~1, ~~characterized in that~~wherein the wavelength of the light is approximately 100 nm.

4. (Currently amended) The ~~M~~method ~~according to~~of claim 1, wherein the layer of silicon oxide deposited in the trenches is densified directly after depositing ~~said~~ the layer and~~,~~ before flattening the silicon oxide layer ~~it~~.

5. (New) The method of claim 1, wherein irradiating the layer of silicon oxide inhibits the formation of corner areas in the active areas.

6. (New) The method of claim 1, further comprising irradiating the silicon oxide layer such that the silicon oxide layer has a density close to the density of silica.

7. (New) The method of claim 1, wherein the silicon oxide layer is deposited in the trenches using a chemical vapor deposition (CVD) process.

8. (New) A method, comprising:

depositing a layer of silicon oxide into shallow trenches laterally adjacent to an active area of a semiconductor device; and

irradiating the layer of silicon oxide with short wavelength light to densify the layer of silicon oxide and inhibit the formation of corner areas in the active areas.

9. (New) The method of claim 8, further comprising irradiating the silicon oxide layer with light at a wavelength less than or equal to 200 nm, with a number of photons per cm^2 greater than 10^{19}, and an energy at least equal to 9 eV.

10. (New) The method of claim 8, wherein the wavelength of the light is approximately 100 nm.

11. (New) The method of claim 8, wherein irradiating the layer of silicon oxide inhibits the formation of corner areas in the active areas during subsequent processing of the semiconductor device.

12. (New) The method of claim 8, further comprising irradiating the silicon oxide layer such that the silicon oxide layer has a density close to the density of silica.

13. (New) The method of claim 8, wherein the silicon oxide layer is deposited in the trenches using a chemical vapor deposition (CVD) process.

14. (New) A method, comprising:

forming a thin layer of thermal silicon oxide along the walls of an active area of a semiconductor device and forming a thin layer of thermal silicon oxide along the walls and bottoms of shallow trenches laterally adjacent to the active area;

depositing silicon oxide into the shallow trenches;

irradiating the silicon oxide in the shallow trenches with short wavelength light to densify the silicon oxide;

forming a thin oxide gate layer on the active area; and

depositing a gate onto the thin oxide gate layer, wherein the gate overlaps the shallow trenches.

15. (New) The method of claim 14, further comprising irradiating the silicon oxide in the shallow trenches with light at a wavelength less than or equal to 200 nm, with a number of photons per cm^2 greater than 10^{19}, and an energy at least equal to 9 eV.

16. (New) The method of claim 14, wherein the wavelength of the light is approximately 100 nm.

17. (New) The method of claim 14, wherein irradiating the silicon oxide inhibits the formation of corner areas in the active areas.

18. (New) The method of claim 14, further comprising irradiating the silicon oxide in the shallow trenches such that the silicon oxide in the shallow trenches has a density close to the density of the thermal silicon oxide.

19. (New) The method of claim 14, wherein the silicon oxide layer is deposited in the trenches using a chemical vapor deposition (CVD) process.